WEST Search History

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DATE: Wednesday, November 03, 2004

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		DB=PGPB,USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ	
☐	L23	l20 and L22	22
☐	L22	moving near5 (light or intensity)	33411
☐	L21	moving near5 (ligjt or intesity)	0
☐	L20	L19 and (l8 or l3)	35
☐	L19	l11 same L18	106
☐	L18	(l1 or l2) near5 medium	13121
☐	L17	l10 and L16	33
☐	L16	(l3 or l8) and L14	34
☐	L15	(l3 or l8) same L14	0
☐	L14	l9 near10 L11	434
☐	L13	l11 same L12	808
☐	L12	l9 same L11	808
☐	L11	(separat$6 or fractionat$4) near5 (cell or particle or microparticle)	175301
☐	L10	velocit$5 near5 (cell or particle or microparticle)	21577
☐	L9	(l1 or l2) near5 (cell or particle or microparticle)	18416
☐	L8	optical trap	348
☐	L7	particle and L6	79
☐	L6	velocity and L5	83
☐	L5	separat$5 and L4	139
☐	L4	(l1 or l2) and L3	159
☐	L3	optical tweezer	371
☐	L2	dielectric	441874
☐	L1	permitivity	1566

END OF SEARCH HISTORY

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=> d que
L1          2094 SEA FILE=CAPLUS ABB=ON  PLU=ON  OPTICAL(W)(TRAP? OR TWEEZER)
L2         36085 SEA FILE=CAPLUS ABB=ON  PLU=ON  SEPARAT?(5A)(?PARTICLE OR
                 CELL)
L3        284582 SEA FILE=CAPLUS ABB=ON  PLU=ON  DIELECTRIC OR PERMITIVITY
L4            78 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3 AND L1
L5             3 SEA FILE=CAPLUS ABB=ON  PLU=ON  L2 AND L4


=> d bib ab 1-3

L5   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:597072  CAPLUS
DN   141:268108
TI   Multiple optical trapping by means of diffractive
     optical elements
AU   Cojoc, Dan; Emiliani, Valentina; Ferrari, Enrico; Malureanu, Radu;
     Cabrini, Stefano; Proietti, Remo Zaccaria; Di Fabrizio, Enzo
CS   LILIT Beamline, National Nanotechnology Laboratory-TASC, Istituto
     Nazionale per la Fisica della Materia (INFM) at Elettra, Trieste, 34012,
     Italy
SO   Japanese Journal of Applied Physics, Part 1: Regular Papers, Short Notes &
     Review Papers (2004), 43(6B), 3910-3915
     CODEN: JAPNDE
PB   Japan Society of Applied Physics
DT   Journal
LA   English
AB   The authors report multiple optical trapping of
     microscopic dielec. particles using diffractive optical elements
     implemented on twisted nematic liq. crystal spatial light modulators.  The
     particles are trapped in arrays disposed in plane or in vol. and can be
     moved independently in x-y-z by changing the configuration of the
     diffractive optical element.  The authors show also multiple trapping
     using Laguerre-Gaussian and Gaussian beams simultaneously.  The orbital
     angular momentum of the Laguerre-Gaussian beam is transferred to the
     particle, making it to move on a circular trajectory defined by the
     intensity pattern specific to this beam.  The authors use sample
     cells built with two microscope slides sepd. by 120
     .mu.m with a sticky tape.  The space between the two slides is filled with
     2 .mu.m diam. SiO2 spheres dild. in H2O (concn. 0.026% wt).
     Optical trapping is also possible in a small glass
     capillary with a diam. of 100 .mu.m.
RE.CNT  22    THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5   ANSWER 2 OF 3  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2003:118510  CAPLUS
DN   138:160787
TI   Optical array devices and methods of their use for screening, analysis and
     manipulation of particles
IN   Walt, David R.; Weissman, Irving L.; Biran, Israel; Tam, Jenny
PA   USA
SO   U.S. Pat. Appl. Publ., 30 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   US 2003032204        A1    20030213    US 2002-199341         20020719
PRAI US 2001-306664P      P     20010719
AB   Devices for parallel trapping of multiple dielec. particles are
     described which comprise an optical array comprising a plurality of
     strands disposed coaxially along their lengths to form a single, discrete
     construction, where the array parcels a beam of light into individual
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beams of light, where the distal terminus of each strand is light focusing and where each strand is connectable to a detector. Devices for light activated **particle sepn.** are described which comprise an optical array comprising a plurality of strands disposed coaxially along their lengths to form a single, discrete construction, where the distal terminus of each strand is etched to create a microwell dimensioned for accommodating an individual cell and where the proximal or distal terminus of each fiber is connectable to a detector and to a light source; a fluidic system comprising a sample supply vessel where the array receives a suspension of particles from the sample supply vessel. Methods for anal. of the optical properties of a population of **dielec.** particles are discussed which entail dispersing a population of the **dielec.** particles on a device described above; optically, phys. or chem. trapping the particles; illuminating the particles; detecting emitted light from individual particles; where the emitted light is indicative of the optical properties of the individual particles.

L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:23333 CAPLUS
DN 138:52323
TI Methods and apparatus for use of optical forces for identification, characterization and/or sorting of particles
IN Wang, Mark M.; Tu, Eugene; Pestana, Luis M.; Senyei, Andrew E.; O'Connell, James P.; Nova, Tina S.; Lykstad, Kristie L.; Hall, Jeffrey M.; Butler, William F.
PA Genoptix, USA
SO U.S. Pat. Appl. Publ., 41 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 20

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003007894	A1	20030109	US 2001-845245	20010427
	JP 2004530877	T2	20041007	JP 2002-585125	20011109
	US 2002108859	A1	20020815	US 2001-993389	20011114
	US 2002115163	A1	20020822	US 2001-993317	20011114
	US 2002115164	A1	20020822	US 2001-993377	20011114
	US 6784420	B2	20040831		
	US 2002113204	A1	20020822	US 2001-993388	20011114
	US 2002123112	A1	20020905	US 2001-993375	20011114
	US 2002121443	A1	20020905	US 2001-993378	20011114
	US 2002132315	A1	20020919	US 2001-993326	20011114
	US 6744038	B2	20040601		
	US 2002132316	A1	20020919	US 2001-993376	20011114
	US 2003008364	A1	20030109	US 2001-993318	20011114
	US 2002160470	A1	20021031	US 2002-53507	20020117
	US 2003124516	A1	20030703	US 2002-243611	20020912
	US 2003194755	A1	20031016	US 2002-326796	20021219
	US 2004009540	A1	20040115	US 2002-324926	20021219
	US 2004023310	A1	20040205	US 2002-326568	20021219
	US 2004000733	A1	20040101	US 2003-608321	20030627
PRAI	US 2000-248451P	P	20001113		
	US 2001-843902	A	20010427		
	US 2001-845245	A	20010427		
	WO 2001-US51001	W	20011109		
	US 2001-993377	A2	20011114		
	US 2002-53507	A2	20020117		
	US 2002-377145P	P	20020501		
	US 2002-399931P	P	20020730		
	US 2002-400936P	P	20020801		
	US 2002-243611	A2	20020912		

AB The invention concerns app. and methods are provided for interacting light with particles, including but not limited to biol. matter such as cells, in unique and highly useful ways. Optophoresis consists of subjecting particles to various optical forces, esp. optical gradient forces, and

more particularly moving optical gradient forces, so as to obtain useful results. In biol., this technol. represents a practical approach to probing the inner workings of a living cell, preferably without any dyes, labels or other markers. In one aspect, a particle may be characterized by detg. its optophoretic const. or signature. For example, a diseased cell has a different optophoretic const. from a healthy cell, thereby providing information, or the basis for sorting. In the event of phys. sorting, various forces may be used for sepn., including fluidic forces, such as through the use of laminar flow, or optical forces, or mech. forces, such as through adhesion. Various techniques for measuring the **dielec**. const. of particles are provided. Diagrams describing the app. assembly and operation are given.

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